AF/1731

CASE PP/3-21904/AC 515/PCT

CERTIFICATE OF MAILING

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

ANDREA DeCecchis — Type or print name
Andrea DeCecchis — Signature
7/8/03 — Date

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE PCT NATIONAL STAGE APPLICATION OF
SIMON DONNELLY ET AL.
INTERNATIONAL APPLICATION NO. PCT/EP
PCT/EP00/00160
FILED: JANUARY 12, 2000
FOR: AQUEOUS POLYMERIC EMULSION COMPOSITIONS AND THEIR USE FOR THE SIZING OF PAPER
U.S. APPLICATION NO: 09/889,889
35 USC 371 DATE: July 23, 2001

Group Art Unit: 1731
Examiner: P. Chin

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT AFTER FINAL REJECTION

Sir:

This Amendment is being filed responsive to the Office action (Final Rejection) mailed on August 8, 2003, the response to which is being mailed within the shortened statutory period for response. It is requested that the amendment be entered to place the claims in condition for allowance or, alternatively, in better form for appeal.

No fee, petition, or certification is required. The Commissioner is authorized to charge any fee due, or credit any overcharge, as a result of this Amendment to Deposit Account No. 03-1935.

Please amend the above-identified patent application, without prejudice, as follows.

IN THE CLAIMS

Kindly replace claims 1 and 3 by the following claims.

1. (amended) A method of sizing paper or paper board by applying a composition (A) to at least one of,

i) the surface of a formed paper or paper board sheet,

ii) a paper or paper board making cellulosic suspension prior to draining,

wherein the composition (A) comprises an aqueous dispersion of polymeric particles of particle size up to 1 micron, wherein the polymeric particles comprise a water insoluble polymer matrix, comprised of ethylenically unsaturated monomer or ethylenically unsaturated monomer blend, wherein an oligomer formed from a monomer blend comprising,

(a) (meth)acrylamide,

(b) an organic mercaptan or organic sulphone, and

(c) an ethylenically unsaturated monomer comprising either a tertiary amine group or a quaternary ammonium group

is located at the surface of the polymer particles.

3. (twice amended) A method according to claim 1 wherein component (c) comprises a compound of formula (1)

CH_2=CR-Q (1) ,

wherein

Q is -C(O)-Z-A-, $-CH_2-N^+R_1R_3CH_2CR=CH_2$ X^- or $-CH_2\,NR_1CH_2CR=CH_2$,

Z is -O- or -NH-,

A is $-C_nH_{2n}-B-$,

n is an integer from 1 to 4,

B is $-NR_1R_2$ or $-N^+R_1R_2R_3$ X^-,

R is -H or $-CH_3$,

R_1 is C_{1-4} alkyl,

R_2 is C_{1-4} alkyl ,

R_3 is -H or C_{1-8} alkyl, C_{5-7} cycloalkyl or benzyl , and

X^- is an anion.

STATUS OF THE CLAIMS

Claims 1-26 were pending in this application.

Claims 1-26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Izubayashi et al. (EP 3290594) in view of Tsai et al. (WO97/37078).

Claims 1-26 are presented for reconsideration.